CLAIMS

Sub a 1. Method for the manufacture of corrugated material, at least one first plane sheet (19; 20) and one second sheet (16) of plastic material arranged in wave shape being brought together for adhesion to each other and the wave-shaped sheet (16) running over core bars (17, 18), *characterized* in

that the core bars (17, 18) extend in the longitudinal direction of the wave-shaped sheet (16),

that a portion of at least one sheet is heated at abutment against the core bars (17, 18),

that the first sheet (19; 20) is brought to abutment against the second sheet (16) for welding the sheets (16; 19, 20) together and

that energy is supplied locally to contact surfaces of abutting sheet portions.

2. Method according to claim 1, wherein at least one portion of at least one of the sheets (16; 19, 20) is heated directly in a contact surface between adjacent sheets (16; 19, 20) with heating members (28) arranged in the core bars (17, 18).

3. Method according to claim 1, wherein at least one portion of at least one sheet is heated indirectly with heating members (28) arranged at a distance from the core bars (17, 18).

4. Method according to claim 1, wherein the second sheet (16) arranged in wave shape is corrugated before it reaches the core bars (17, 18).

5. Method according to claim 1, wherein the first sheet (19; 20) and the second sheet (16) are pressed together against each other between a line of core bars (17, 18) and at least one press roll (21; 22).

6. Device for the manufacture of corrugated material, first members being arranged for feeding at least one first plane sheet and one second sheet of plastic material arranged in wave shape and running over core bars (17, 18) and second members being arranged for bringing together and adhering the sheets, *characterized* in

that the core bars (17, 18) extend in the longitudinal direction of the wave-shaped sheet (16),

that heating members (28) are arranged for transferring heat locally to contact surfaces of a portion of at least one sheet (16; 19, 20) abutting against the core bars and including plastic material

that guide members (17, 18; 21; 22) are arranged for bringing together the first and the second sheet in an abutment portion and for welding together in the portion heated by the heating members (28).

7. Device according to claim 6, wherein the core bars (17, 18) comprise heating members (28) for direct heating of at least the sheet (16) which is corrugated.

8. Device according to claim 6, wherein heating members (28) are arranged at a distance from the core bars (17, 18) for transfer of energy to the abutment portion.

9. Device according to claim 6, wherein heating members (28) are arranged at a distance from the core bars (17, 18) for transfer of energy to the core bars (17, 18), so that the same are heated.

10. Device according to claim 6, wherein corrugation members (14; 15) are arranged for the corrugation of the second sheet (16), before the second sheet (16) reaches the core bars (17, 18).

11. Device according to claim 10, wherein the corrugation member (14; 15) comprise an upper plate (14) made with alternating recesses and ridges and a lower plate (15) made with alternating recesses and ridges adapted to the upper plate (14).

12. Device according to claim 6, wherein the core bars (17, 18) are made with a larger length in the central portion of the sheet and with a shorter length in the cross-direction of the sheet out from the central portion while forming the corrugation member (14; 15).

13. Device according to claim 6, wherein the core bars (17, 18) comprise electric resistance wire for heating material sheets (16; 19; 20) adjacent to the core bars (17, 18).

14. Device according to claim 6, wherein the core bars (17, 18) are arranged in an upper line (17) and a lower line (18).

15. Device according to claim 14, wherein at least a third set of core bars (29) are arranged in a line between the upper line (17) and the lower line (18).